

# What's That Smell, And Why Does My Head Hurt?

This “bug” is what was left after someone sprayed expanding-foam insulation into an electrical-receptacle box.



Story and Photo  
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On a chilly fall morning, John was playing with his children in their room when he felt a draft around one of the electrical receptacles. He had made several comments to his wife that the children's room always seemed cooler than the other rooms in the house. Now he knew why, and he was determined to fix the problem.

John went to the local hardware store and bought a bottle of expanding spray-foam insulation to stop the draft. After removing the faceplate, he sprayed a generous amount of the insulating foam into the void. The foam quickly expanded and oozed out the void, blocking off the chilly air. He replaced the faceplate and felt around the receptacle with his hand, acknowledging to his children that the expanding foam had stopped the draft.

Although John didn't know it, the foam also had over-insulated the electrical wires leading to the receptacle, causing them to start overheating. His children complained of headaches and an unusual odor while playing in their room during the next couple months. Finally, a few days before Christmas, he decided to investigate their complaints.

John couldn't find any problems in the room until he turned off the lights and started to leave. From the corner of his eye, he detected a pale orange glow around the receptacle he had insulated a couple months earlier. He walked over to the receptacle and put his hand on the wall. It was very warm—almost hot to the touch.

After quickly disconnecting the power, John removed the faceplate, only to find a black molten mess. More than half the spray insulation had melted away from the wires. He had found the source of the odor, as well as the headaches. He called an electrician to make the necessary repairs and to insulate the space. The electrician said the house was close to catching on fire.

What lesson did John learn from this incident? Always read and follow the manufacturer's instructions when using any product. He had sprayed the expanding foam into the electrical-receptacle box, instead of around it, as specified by the manufacturer. What appears to be a quick and easy repair may not be the most intelligent or best fix. 